

Work Order ID 110356

December-17-13 9:24:06 AM

110356

Page 1

Item ID: D3650-3

Accept

N900040100

Setup Start

NS1

Revision ID:

Item Name: Center Panel

Stop

NS2

Start Date: 12/17/13 Start Qty: 1.00

1

Cust Item ID:

Required Date: 12/17/13 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals:

Process Plan: ML5

Date: 13-12-18

Tooling:

Date:

Run Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr	Revision Nbr
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D3650	Rev E
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100	0.00	DAS
-----	------	-----

100	FLOW WATER JET	23
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Waterjet	Memo	9-89
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FLOW CNC Waterjet	1-Cut as per Dwg D3650	14-08-16
-------------------	------------------------	----------

304.040" Dwg Rev: E
Prog Rev: 12

2-Deburr if necessary

110	QC2- Inspect parts off machine FAI/FAIB	0.00	DAS
-----	---	------	-----

110	Memo	23
-------	------	----

QC		9-89
----	--	------

Quality Control		14-08-16
-----------------	--	----------

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____

Date: _____

Work Order update only 

Work Order: _____			DISPOSITION			AGAINST DEPARTMENT/PROCESS																		
Part No. _____			Rework <input type="checkbox"/>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>																	
NCR No. _____			Scrap <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coor. <input type="checkbox"/>	Quality <input type="checkbox"/>																	
Suspected Unapproved <input type="checkbox"/>			Use-as-is <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>																	
Root Cause		Date	Step	Qty	Description of work order update or non-conformance		Initial Chief Eng	Action Description		Sign & Date	Verification	QC Inspector												
Design																								
Doc/Data																								
Equip/Tooling																								
Handling/Pre																								
Material																								
Operator																								
Offset/Setup																								
Process																								
Supplier																								
Training																								
Transport																								
Unapproved																								
FAULT CATEGORY																								
Landing Gear					General																			
<input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric <input type="checkbox"/> Cracks <input type="checkbox"/> Crimp/Kink/Ripple/Wave <input type="checkbox"/> Cuffs <input type="checkbox"/> Crushing <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Marks/Chatter <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube					<input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damage/Defect <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drawing <input type="checkbox"/> Drill Holes <input type="checkbox"/> Finish <input type="checkbox"/> Fit/Function								<input type="checkbox"/> Folio/Program <input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete/Unqualified <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Misaligned/off center <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Off-set <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence				<input type="checkbox"/> Outside Dimensions <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge				<input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Set-up <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled			
																					<input type="checkbox"/> Other			

Work Order ID 110356

110356

Page 2

December-17-13 9:24:06 AM

Item ID: D3650-3

Accept

N900040100

Setup Start

NS1

Revision ID:

Item Name: Center Panel

Stop

NS2

Start Date: 12/17/13 Start Qty: 1.00

1

Cust Item ID:

Required Date: 12/17/13 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

Sequence ID/
Work Center ID

Operation
Description

120

QC8- Inspect parts - second check

120

QC

Quality Control

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

DAS

38

9-89

14/08/18

130

130

Brake NC

NC BRAKE

0.00

DAS

30

9-89

0.00

Brake NC

Memo

1-Form as per Dwg D3650 using DT9426

2-bend as per dwg

140

140

QC

Quality Control

QC5- Inspect part completeness to step on W/O

0.00

DAS

38

9-89

14-10-15

0.00

①

DQA: _____ Date: _____

Date:

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Date:

Work Order update only



Work Order: _____ Part No. _____ NCR No. _____				DISPOSITION		AGAINST DEPARTMENT/PROCESS																	
Suspected Unapproved <table border="1" style="display: inline-table; vertical-align: middle;"> <tr><td>Rework</td></tr> <tr><td>Scrap</td></tr> <tr><td>Use-as-is</td></tr> </table>				Rework	Scrap	Use-as-is	Skid-tube <table border="1" style="display: inline-table; vertical-align: middle;"> <tr><td></td></tr> <tr><td></td></tr> </table>				Crosstube <table border="1" style="display: inline-table; vertical-align: middle;"> <tr><td></td></tr> <tr><td></td></tr> </table>				Water Jet <table border="1" style="display: inline-table; vertical-align: middle;"> <tr><td></td></tr> <tr><td></td></tr> </table>				Engineering <table border="1" style="display: inline-table; vertical-align: middle;"> <tr><td></td></tr> <tr><td></td></tr> </table>				
Rework																							
Scrap																							
Use-as-is																							
				Machining <table border="1" style="display: inline-table; vertical-align: middle;"> <tr><td></td></tr> <tr><td></td></tr> </table>				Small Fab <table border="1" style="display: inline-table; vertical-align: middle;"> <tr><td></td></tr> <tr><td></td></tr> </table>				Prod. Eng. Coor. <table border="1" style="display: inline-table; vertical-align: middle;"> <tr><td></td></tr> <tr><td></td></tr> </table>				Quality <table border="1" style="display: inline-table; vertical-align: middle;"> <tr><td></td></tr> <tr><td></td></tr> </table>							
				Thermoforming <table border="1" style="display: inline-table; vertical-align: middle;"> <tr><td></td></tr> <tr><td></td></tr> </table>				Finishing <table border="1" style="display: inline-table; vertical-align: middle;"> <tr><td></td></tr> <tr><td></td></tr> </table>				Rec/Store/Packaging <table border="1" style="display: inline-table; vertical-align: middle;"> <tr><td></td></tr> <tr><td></td></tr> </table>				Other <table border="1" style="display: inline-table; vertical-align: middle;"> <tr><td></td></tr> <tr><td></td></tr> </table>							
				Large Fab <table border="1" style="display: inline-table; vertical-align: middle;"> <tr><td></td></tr> <tr><td></td></tr> </table>				Composite <table border="1" style="display: inline-table; vertical-align: middle;"> <tr><td></td></tr> <tr><td></td></tr> </table>				Supplier <table border="1" style="display: inline-table; vertical-align: middle;"> <tr><td></td></tr> <tr><td></td></tr> </table>											
Root Cause		Date	Step	Qty	Description of work order update or non-conformance		Initial Chief Eng	Action Description		Sign & Date	Verification	QC Inspector											
Design																							
Doc/Data																							
Equip/Tooling																							
Handling/Pre																							
Material																							
Operator																							
Offset/Setup																							
Process																							
Supplier																							
Training																							
Transport																							
Unapproved																							
FAULT CATEGORY																							
Landing Gear				General																			
<input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric <input type="checkbox"/> Cracks <input type="checkbox"/> Crimp/Kink/Ripple/Wave <input type="checkbox"/> Cuffs <input type="checkbox"/> Crushing <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Marks/Chatter <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube				<input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damage/Defect <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drawing <input type="checkbox"/> Drill Holes <input type="checkbox"/> Finish <input type="checkbox"/> Fit/Function								<input type="checkbox"/> Folio/Program <input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete/Unqualified <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Misaligned/off center <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Off-set <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence				<input type="checkbox"/> Outside Dimensions <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge				<input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Set-up <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled			

Work Order ID 110356

110356

December-17-13 9:24:07 AM

Page 3

Item ID: D3650-3

Accept

N900040100

Setup

Start

NS1

Revision ID:

Item Name: Center Panel

Stop

NS2

Start Date: 12/17/13

Start Qty: 1.00

1

Cust Item ID:

Required Date: 12/17/13

Req'd Qty: 1.00

1

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run

Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

190

Identify as per dwg & Stock Location: G.A.

0.00

190

Packaging

Memo

0.00

1 88

OCT 15 2014

Packaging

200

QC21- Final Inspection - Work Order Release

0.00

200

QC

Quality Control

Memo

0.00

14/10/16 44

10-10-15

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____

Date: _____

Work Order update only 

Work Order: _____	DISPOSITION			AGAINST DEPARTMENT/PROCESS				
Part No. _____	Rework <input type="checkbox"/>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>			
NCR No. _____	Scrap <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coor. <input type="checkbox"/>	Quality <input type="checkbox"/>			
	Use-as-is <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>			
	Suspected Unapproved <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>				

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear	General			
Bending	Bend	<input type="checkbox"/>	Outside Dimensions	<input type="checkbox"/>
Centre Not Concentric	BOM/Route	<input type="checkbox"/>	Over/Under tolerance	<input type="checkbox"/>
Cracks	Broken/Damage/Defect	<input type="checkbox"/>	Part Incorrect	<input type="checkbox"/>
Crimp/Kink/Ripple/Wave	Burrs	<input type="checkbox"/>	Part Lost/Missing	<input type="checkbox"/>
Cuffs	Contamination	<input type="checkbox"/>	Part Moved	<input type="checkbox"/>
Crushing	Countersink	<input type="checkbox"/>	Positioned Wrong	<input type="checkbox"/>
Heat Treat	Cut Too Short	<input type="checkbox"/>	Power Loss/Surge	<input type="checkbox"/>
Inspection Strip in Tube	Drawing	<input type="checkbox"/>	Other	<input type="checkbox"/>
Marks/Chatter	Drill Holes	<input type="checkbox"/>		
Turning Sequence	Finish	<input type="checkbox"/>		
Wave/Twist in Tube	Fit/Function	<input type="checkbox"/>		

Picklist Print

December-17-13 9:24:06 AM

Page 1

Work Order ID: 110356

Parent Item: D3650-3

Start Date: 12/17/13

Required Date: 12/17/13

Parent Item Name: Center Panel

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP Rev:A New Issue 07-09-27 DD verified by: EC

IPP Rev:B ECN 1113P 08-01-22 DD

IPP REV:C AS PER REV E 12-10-

09 JLM VERIFIED BY:DD

IPP Rev:C ecn1162 08-04-02 DD verified by: EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M304S20GA 304/316 .040 Sheet		Purchased	No				sf	436.3000		(2)		DAS 23	74-08-16 9-89

Location	Loc Qty	Loc Code
MAT020	436.30001	
m125754	24.17001	
m126852	111.13	
m127454	301	

129545

129545

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only

Work Order: _____	DISPOSITION	AGAINST DEPARTMENT/PROCESS							
Part No. _____	Rework <input type="checkbox"/>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>				
NCR No. _____	Scrap <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coor. <input type="checkbox"/>	Quality <input type="checkbox"/>				
	Use-as-is <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>				
	Suspected Unapproved <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>					

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear	General		
<input type="checkbox"/> Bending	<input type="checkbox"/> Bend	<input type="checkbox"/> Folio/Program	<input type="checkbox"/> Outside Dimensions
<input type="checkbox"/> Centre Not Concentric	<input type="checkbox"/> BOM/Route	<input type="checkbox"/> Grain	<input type="checkbox"/> Pressure/Forced
<input type="checkbox"/> Cracks	<input type="checkbox"/> Broken/Damage/Defect	<input type="checkbox"/> Hardware	<input type="checkbox"/> Set-up
<input type="checkbox"/> Crimp/Kink/Ripple/Wave	<input type="checkbox"/> Burrs	<input type="checkbox"/> Inspection Incomplete/Unqualified	<input type="checkbox"/> Temperature/Cure
<input type="checkbox"/> Cuffs	<input type="checkbox"/> Contamination	<input type="checkbox"/> Instructions Incomplete/Unclear	<input type="checkbox"/> Weld
<input type="checkbox"/> Crushing	<input type="checkbox"/> Countersink	<input type="checkbox"/> Misaligned/off center	<input type="checkbox"/> Wrong Stock Pulled
<input type="checkbox"/> Heat Treat	<input type="checkbox"/> Cut Too Short	<input type="checkbox"/> Mislabeled	<input type="checkbox"/> Other
<input type="checkbox"/> Inspection Strip in Tube	<input type="checkbox"/> Drawing	<input type="checkbox"/> Misread	
<input type="checkbox"/> Marks/Chatter	<input type="checkbox"/> Drill Holes	<input type="checkbox"/> Off-set	
<input type="checkbox"/> Turning Sequence	<input type="checkbox"/> Finish	<input type="checkbox"/> Out of Calibration	
<input type="checkbox"/> Wave/Twist in Tube	<input type="checkbox"/> Fit/Function	<input type="checkbox"/> Out of Sequence	

DART AEROSPACE LTD	Work Order:	110356
Description: Center Panel	Part Number:	D3650-3
Inspection Dwg: D3650 Rev: E		Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

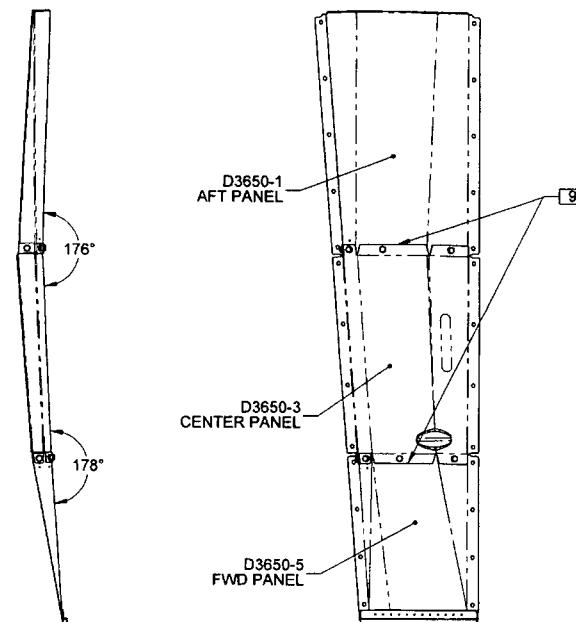
~~BAS~~

DAS
29

Measured by:	23 9-89	Audited by:	9-89	Preliminary Approval:	
Date:	14-08-16.	Date:	14/08/18	Date:	

Rev	Date	Change	Revised by	Approved
A	08.04.17	New Issue	KJ/DD	
B	12.03.08	Dwg Rev updated	KJ	
C	12.09.26	Dimensions updated per Dwg Rev D	KJ	
D	12.10.26	Dimensions updated per Dwg Rev E	KJ	✓

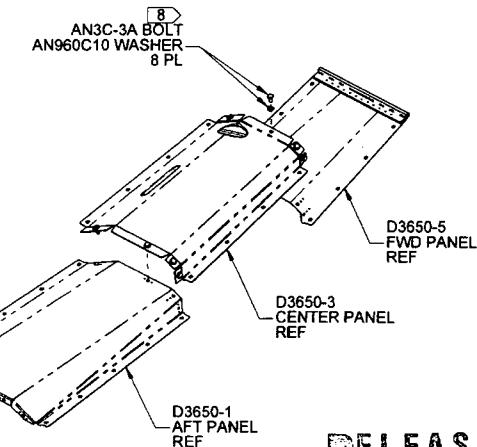
8	7	6	5	4	3	2	1
QTY	PART NUMBER	DESCRIPTION					
X	D3650-041	TUNNEL TOP PANEL ASSEMBLY					
1	D3650-1	AFT PANEL					
1	D3650-3	CENTER PANEL					
1	D3650-5	FWD PANEL					
8	AN3C-3A	BOLT					
8	AN960C10	WASHER					



D3650-041 TUNNEL TOP PANEL ASSEMBLY

NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 4.3 lbs
- 8) TORQUE FASTENERS 15 TO 25 in-lb
- 9) SEAL ALL MATING SURFACES AND ALL GAPS USING PROSEAL 700 FIRE WALL SEALANT



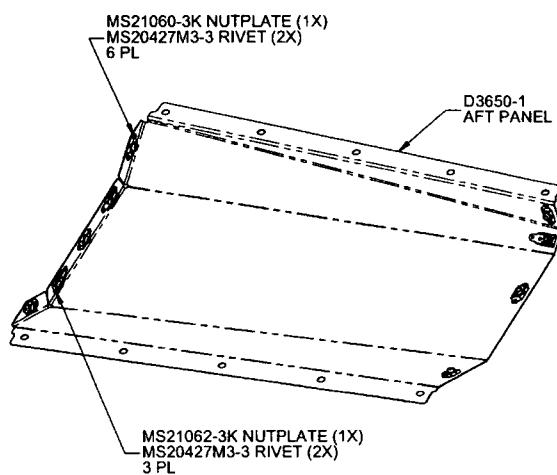
110356 MLJ
1312-18

RELEASED
2012-10-05

E	REVISED D3650-3. 0.040 IN THICKNESS WAS 0.018. MINOR DIMENSIONAL CHANGES AS A RESULT.	MB	12.10.01
D	D3650-11 REPLACED WITH AN EMBOSSED PAGE 4. DELETED. D3650-3 BEND RELIEFS CHANGED TO TRIANGULAR SHAPE AT BOTH ENDS. D3650-3 HOLES CHANGED TO SLOTS. ALL NOTES UPDATED TO CONFORM TO QSI 043. TIGHTENED CUT TOLERANCES IN ALL FLAT PATTERNS. DEO D3650-C-1 INCORPORATED.	RP	12.08.12
C	REFORMATTED TO NEW STANDARDS: RELOCATED PART LIST (ZN D2-2); ADDED SECTION VIEW J & REVISE DIMENSIONS (ZN B7-5, C4-5); ADDED RECESS LOCATION & REVISED DIMENSIONS (ZN C6-6, D5-6); MS20615-4M5 WAS CR3523-4-03 & NAS1149C432R WAS AN960C4 (ZN D5-7, B5-7, B8-7)	RF	08.10.14
B	UPGRADED & UPDATED FASTENER QUANTITIES; UPDATED VIEWS; SHEETS 3 & 8. REMOVED/RELOCATED HOLES; UPDATED VIEWS. SHEET 4: 1.8 WAS 1.5; 1.0 WAS 0.8; UPDATED VIEW; ADDED NOTE 8. SHEET 5: REVISED NOTE IN C6 & ASSOCIATED DIMS; UPDATED VIEWS. SHEET 6: REMOVED/RELOCATED HOLES & ADDED CUTOUT TO D3650-3F; MOVED D3650-11-11F TO SHEET 9; ADDED DETAIL 1. SHEET 9: RELOCATED D3650-11-11F FROM SHEET 6; UPDATED DIMS OF D3650-11-11F.	RF	08.01.07
A	NEW ISSUE	RF	07.11.07
REV.	DESCRIPTION	BY	DATE
DESIGN	RF	DART AEROSPACE LTD	
DRAWN	MB	HAWKESBURY, ONTARIO, CANADA	
CHECKED	<i>RP</i>	REV. E	
MFG. APPR.	<i>AP</i>	DRAWING NO.	D3650
APPROVED	<i>AP</i>	REV. SHEET	1 OF 8
DE APPR.	<i>AP</i>	TITLE	TOP PANEL ASSEMBLY
DATE	12.10.01	SCALE	NTS

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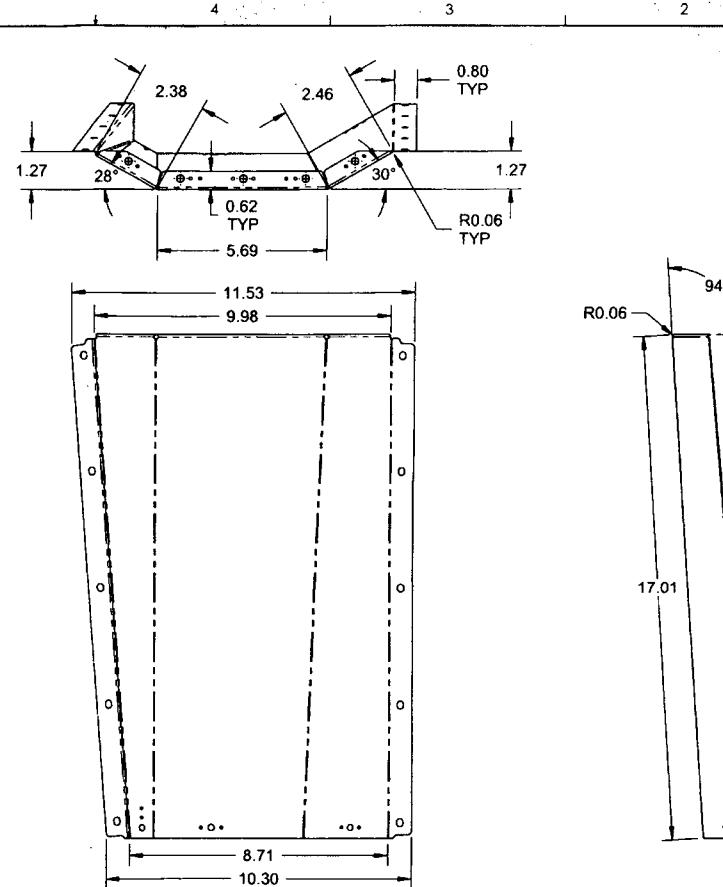
QTY	PART NUMBER	DESCRIPTION
1	X D3650-1	AFT PANEL
1	D3650-1B	AFT PANEL BENT PART
18	MS20427M3-3	RIVET
6	MS21060-3K	NUTPLATE
3	MS21062-3K	NUTPLATE



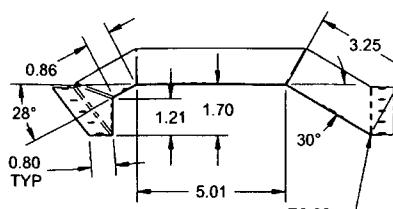
D3650-1 AFT PANEL

NOTES:

- 1) MATERIAL: MAKE FROM D3650-1F
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 1.3 lbs

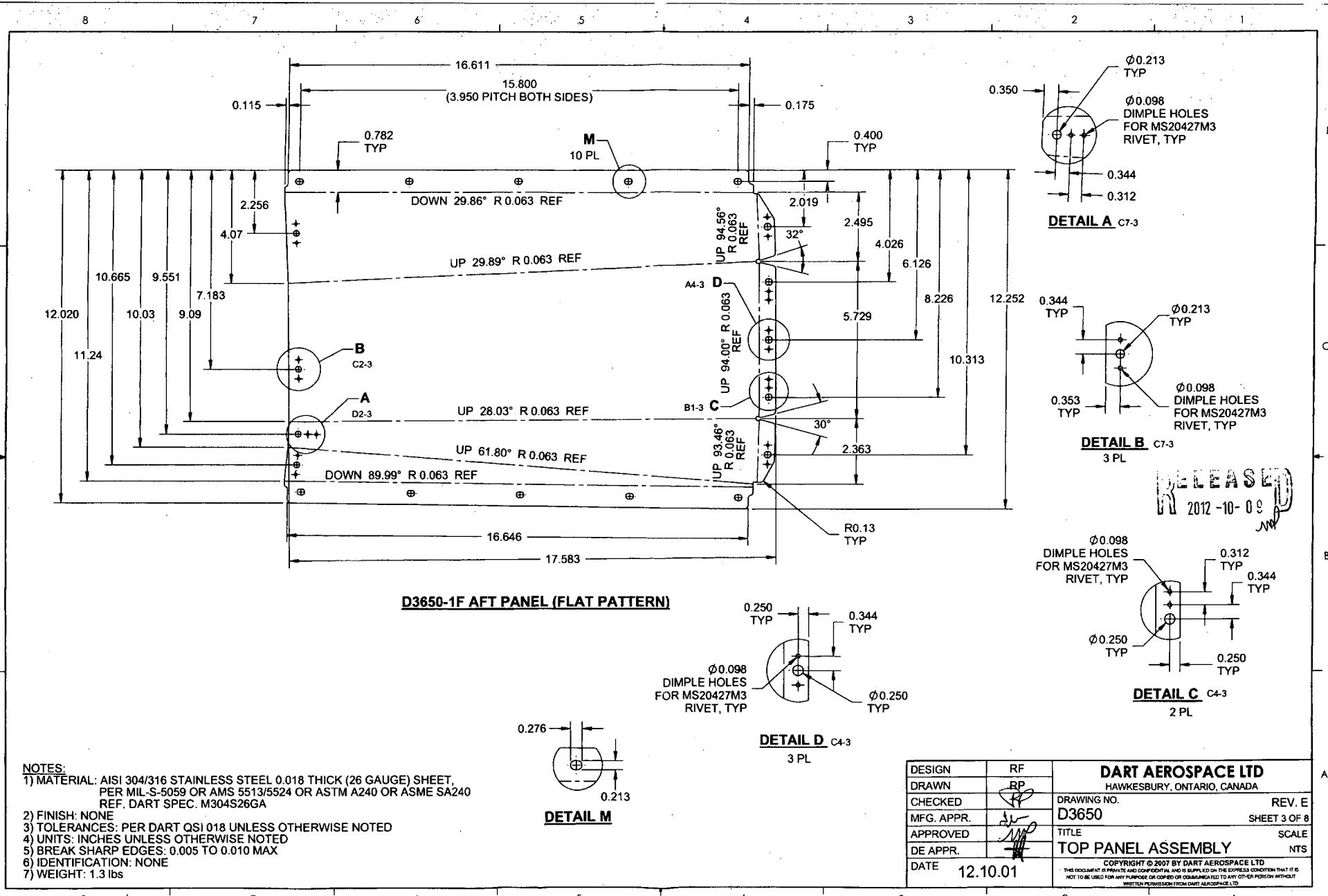


D3650-1B AFT PANEL BENT PART



DESIGN	RF	DART AEROSPACE LTD	
DRAWN	RP	HAWKESBURY, ONTARIO, CANADA	
CHECKED	<i>RP</i>	DRAWING NO.	REV. E
MFG. APPR.	<i>JK</i>	D3650	SHEET 2 OF 8
APPROVED	<i>MJ</i>	TITLE	SCALE
DE APPR.	<i>JK</i>	TOP PANEL ASSEMBLY	NTS
DATE	12.10.01	COPYRIGHT © 2007 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED UNDER THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD	

RELEASED
2012-10-09
MJ



DESIGN	RF	DART AEROSPACE LTD			
DRAWN	RP	HAWKESBURY, ONTARIO, CANADA			
CHECKED	PP	DRAWING NO.			
MFG. APPR.	JP	REV. E			
APPROVED	MM	D3650			
DE APPR.	MM	SHEET 3 OF 8			
DATE	12.10.01	TITLE			
		SCALE			
		NTS			
TOP PANEL ASSEMBLY					
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8

7

6

5

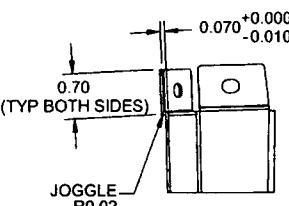
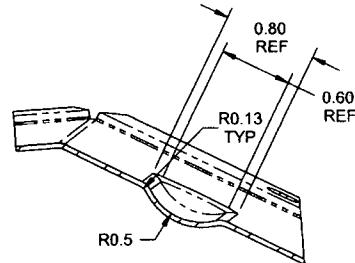
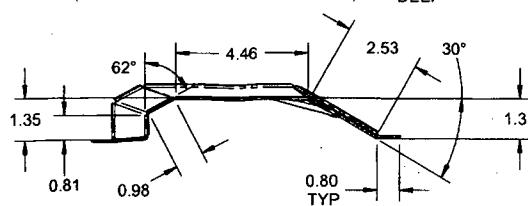
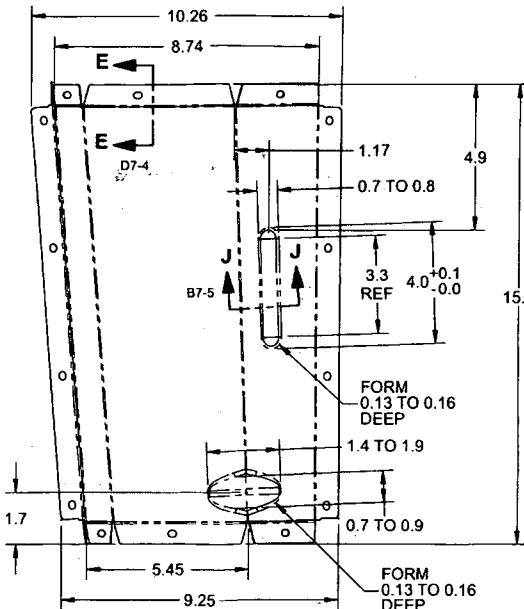
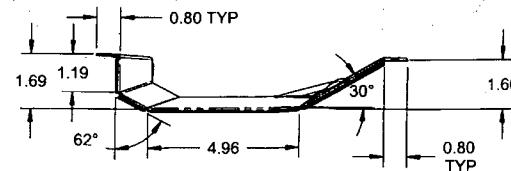
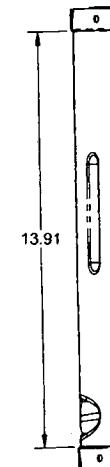
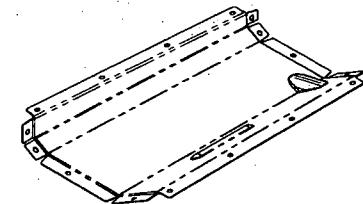
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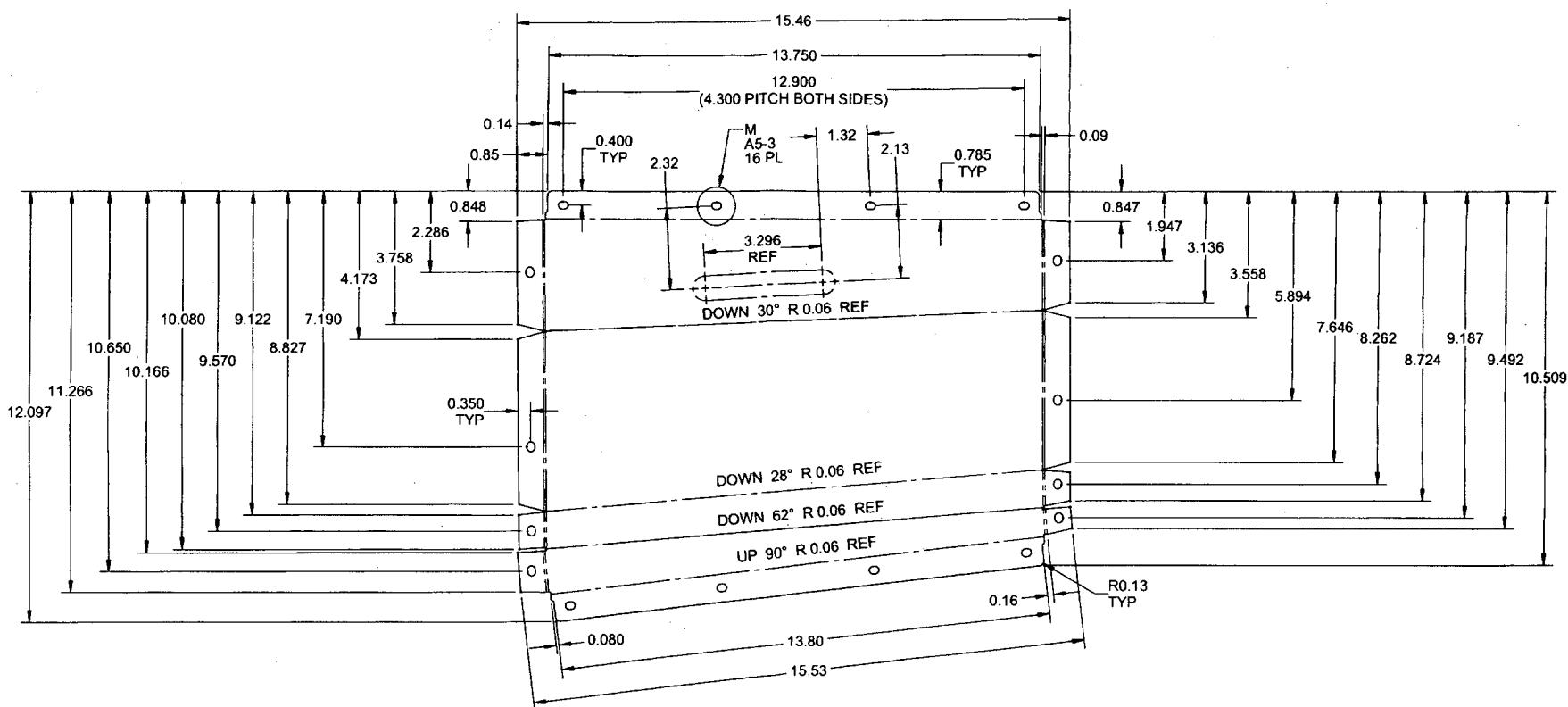
D

SECTION E-E C5-4SECTION J-J C4-4△ D3650-3 CENTER PANEL

RELEASED
2012-10-09
JW

NOTES:
 1) MATERIAL: MAKE FROM D3650-3F
 2) FINISH: NONE
 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
 4) UNITS: INCHES UNLESS OTHERWISE NOTED
 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
 6) IDENTIFICATION: NONE 
 7) WEIGHT: 1.98 lbs 

DESIGN	RF	DART AEROSPACE LTD	
DRAWN	MB	HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO. D3650	
MFG. APPR.		REV. E SHEET 4 OF 8	
APPROVED		TITLE TOP PANEL ASSEMBLY	
DE APPR.		SCALE NTS	
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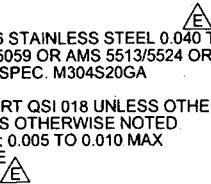


△ D3650-3F CENTER PANEL (FLAT PATTERN)

A

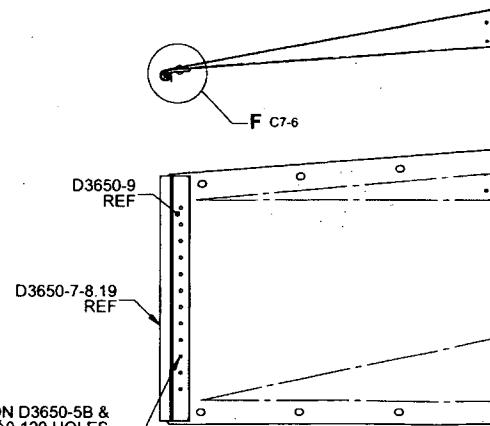
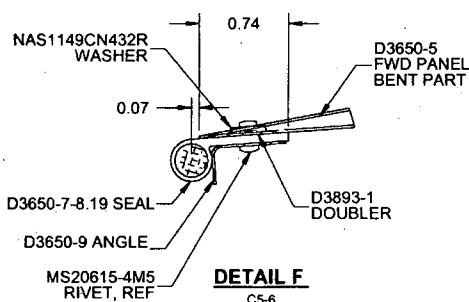
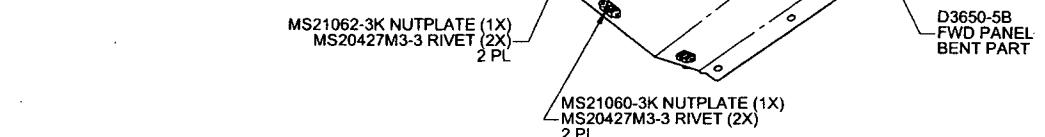
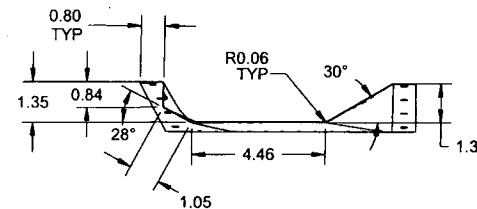
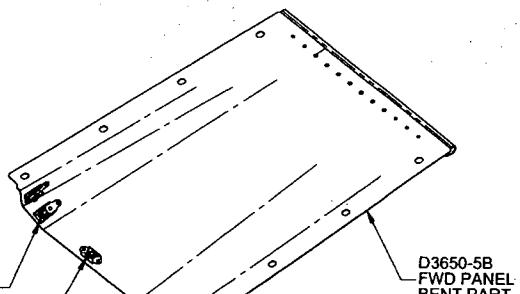
NOTES:

- 1) MATERIAL: AISI 304/316 STAINLESS STEEL 0.040 THICK (20 GAUGE) SHEET, PER MIL-S-5059 OR AMS 5513/5524 OR ASTM A240 OR ASME SA240 REF. DART SPEC. M304S20GA
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 1.98 lbs



DESIGN	RF	DART AEROSPACE LTD	
DRAWN	MB	HAWKESBURY, ONTARIO, CANADA	
CHECKED	<i>✓</i>	DRAWING NO.	REV. E
MFG. APPR.	<i>✓</i>	D3650	SHEET 5 OF 8
APPROVED	<i>✓</i>	TITLE:	SCALE
DE APPR.	<i>✓</i>	TOP PANEL ASSEMBLY	NTS
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QTY	PART NUMBER	DESCRIPTION
-5	X D3650-5	FWD PANEL
1	D3650-5B	FWD PANEL BENT PART
1	D3650-7-8.19	SEAL
1	D3650-9	ANGLE
1	D3893-1	DOUBLER
12	NAS1149CN432R	WASHER
12	MS20615-4M5	RIVET
8	MS20427M3-3	RIVET
2	MS21060-3K	NUTPLATE
2	MS21062-3K	NUTPLATE

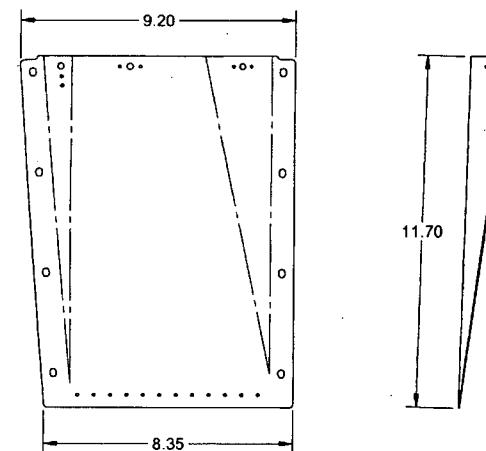


CENTRE D3650-7/9 ON D3650-5B &
TRANSFER Ø.129 HOLES
FROM D3650-9 TO D3650-7 & D3650-5B
AS SHOWN
INSTALL
MS20615-4M5 RIVET
NAS1149CN432R WASHER
12 PL

D3650-5 FWD PANEL

NOTES:

- 1) MATERIAL: MAKE FROM D3650-5F
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 0.8 lbs.



D3650-5B FWD PANEL BENT PART

RELEASED
2012-10-09
W

DESIGN	RF	DART AEROSPACE LTD	
DRAWN	RP	HAWKESBURY, ONTARIO, CANADA	
CHECKED	<i>RP</i>	DRAWING NO. D3650	
MFG. APPR.	<i>RP</i>	REV. E SHEET 6 OF 8	
APPROVED	<i>RP</i>	TITLE	SCALE NTS
DE APPR.	<i>RP</i>	TOP PANEL ASSEMBLY	
DATE	12.10.01	COPYRIGHT © 2007 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD	

8

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D

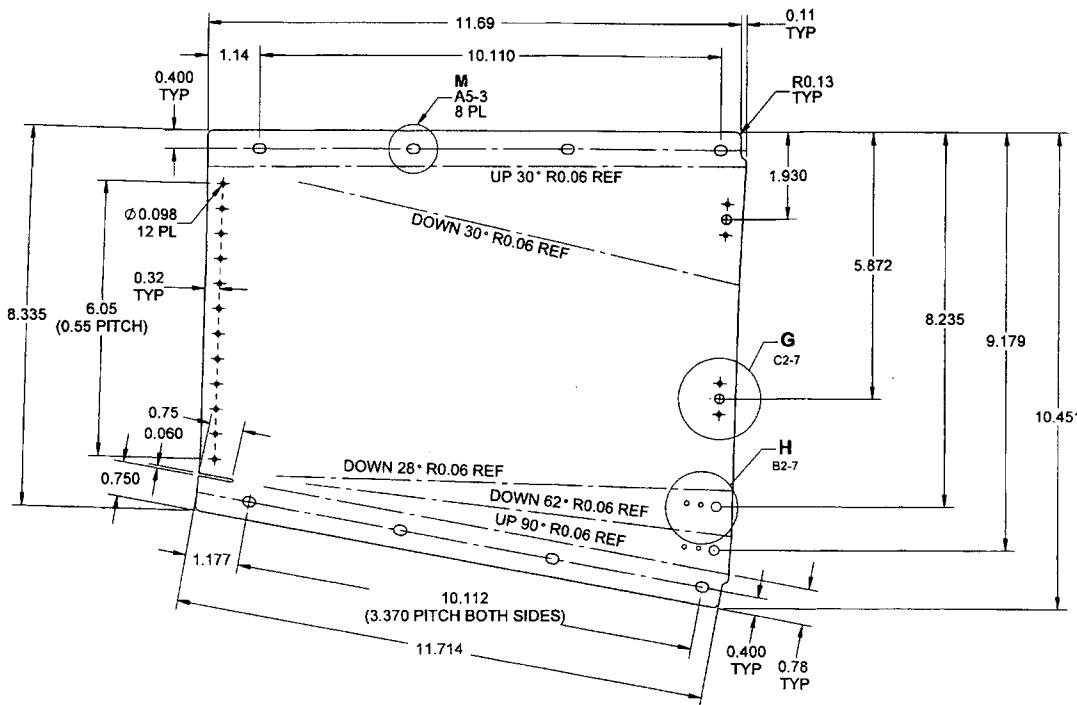
D

C

C

B

B



D3650-5F FWD PANEL (FLAT PATTERN)

NOTES:

- 1) MATERIAL: AISI 304/316 STAINLESS STEEL 0.018 THICK (26 GAUGE) SHEET, PER MIL-S-5059 OR AMS 5513/5524 OR ASTM A240 OR ASME SA240 REF. DART SPEC. M304S26GA
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 0.6 lb

8

7

6

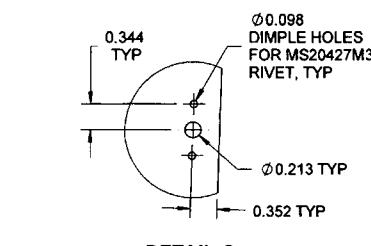
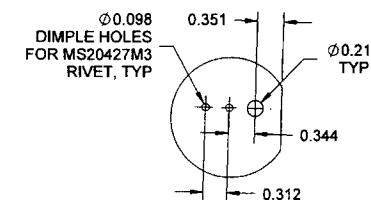
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4

3

2

1

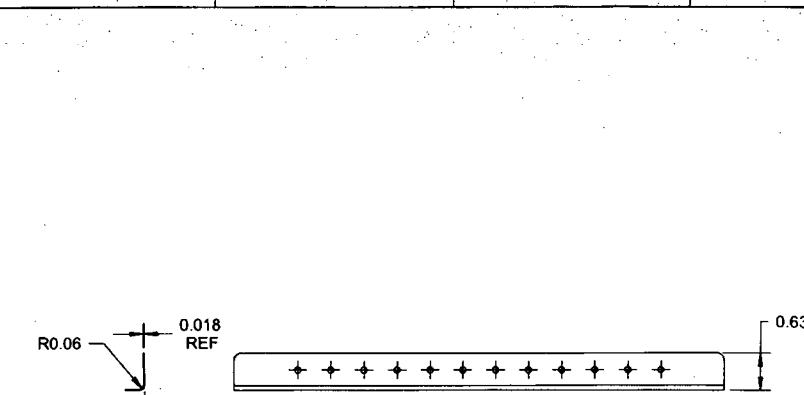
DETAIL G CS-7
2 PLDETAIL H BS-7
2 PL

RELEAS
2012-10-09 AM

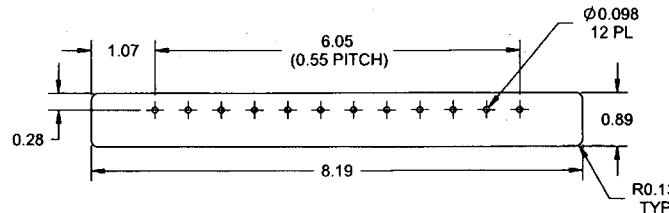
DESIGN	RF	DART AEROSPACE LTD	
DRAWN	RP	HAWKESBURY, ONTARIO, CANADA	
CHECKED	<i>SP</i>	DRAWING NO. D3650	
MFG. APPR.	<i>W</i>	REV. E	
APPROVED	<i>W</i>	SHEET 7 OF 8	
DE APPR.	<i>W</i>	TITLE TOP PANEL ASSEMBLY	
DATE	12.10.01	SCALE NTS	

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A



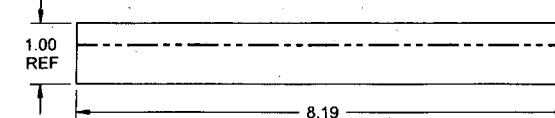
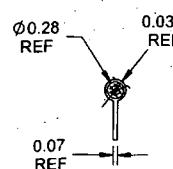
D3650-9 ANGLE
(MAKE FROM D3650-9F)



D3650-9F ANGLE (FLAT PATTERN)

D3650-9F

- 1) MATERIAL: AISI 304/316 STAINLESS STEEL 0.018 THICK (26 GAUGE) SHEET, PER MIL-S-5059 OR AMS 5513/5524 OR ASTM A240 OR ASME SA240 REF. DART SPEC. M304S26GA
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 0.05 lb



D3650-7-8.19 SEAL

NOTES:

- 1) MATERIAL: P/N 81168-1 TADPOLE SEAL (REF. BELL P/N 120-104-1)
POSSIBLE SUPPLIER: EAGLE COPTERS OR BELL
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 0.05 lb
- 8) PART NUMBER: D3650-7-X.XX
WHERE X.XX = LENGTH IN INCHES
EG. 12.50" LONG = D3650-7-12.50

RELEASED
2012-10-09
M

DESIGN	RF	DART AEROSPACE LTD	
DRAWN	RP	HAWKESBURY, ONTARIO, CANADA	
CHECKED	RP	DRAWING NO.	
MFG. APPR.	AM	REV. E	
APPROVED	MM	D3650 SHEET 8 OF 8	
DE APPR.	MM	TITLE	
DATE	12.10.01	SCALE	
		NTS	

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